



18 June 2018

GONORRHEA – FACT SHEET FOR CLINICIANS

Gonorrhea is a sexually transmitted infection caused by infection with the *Neisseria gonorrhoeae* bacterium which infects the mucous membranes of the reproductive tract, including the cervix, uterus, and fallopian tubes in women, and the urethra in women and men. *N. gonorrhoeae* can also infect the mucous membranes of the mouth, throat, eyes, and rectum. Gonorrhea is transmitted through sexual contact with the penis, vagina, mouth, or anus of an infected partner. Ejaculation does not have to occur for gonorrhea to be transmitted or acquired. Gonorrhea can also be spread perinatally from mother to baby during childbirth. People who have had gonorrhea and received treatment may be reinfected if they have sexual contact with a person infected with gonorrhea.

Gonorrhea in the U.S. and the Navy and Marine Corps

CDC estimates that approximately 820,000 new gonococcal infections occur in the United States each year (468,514 reported cases in 2016).

Gonorrhea rates in the DON have been increasing for the last few years and now exceed the Healthy People 2020 targets for both men and women. In 2017, there were 1,173 cases reported among active duty Sailors (781) and Marines (392). The rate in Navy females was 260.8 per 100,000, an increase over the 2016 rate of 223.8. The rate in female Marines was 408.8 per 100,000 compared to 161.4 in 2016. Of the Navy cases, 157 were female and 624 were male. The overall rate for the Navy was 241.8 infections per 100,000. Females aged 15-19 and 20-24 had the highest rates of gonorrhea during 2017, at 387.4 and 412.2 per 100,000, respectively. Reported cases of gonorrhea among Marines also increased substantially in 2017 and were comprised of 60 females and 332 males. The overall rate of gonorrhea for the Marine Corps was 213.2 per 100,000, with females 15-19 having the highest rates at 657.9 per 100,000.

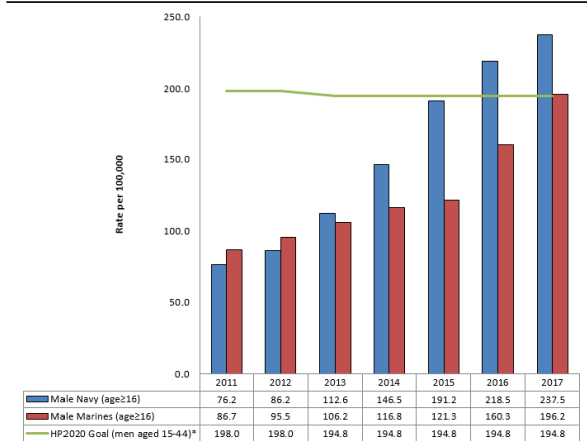
What are the signs and symptoms of gonorrhea?

Many men with gonorrhea are asymptomatic. When present, signs and symptoms of urethral infection in men include dysuria or a white, yellow, or green urethral discharge that usually appears one to fourteen days after infection. In cases where urethral infection is complicated by epididymitis, men with gonorrhea may also complain of testicular or scrotal pain.

Most women with gonorrhea are asymptomatic. Even when a woman has symptoms, they are often so mild and nonspecific that they are mistaken for a bladder or vaginal infection. The initial symptoms and signs in women include dysuria, increased vaginal discharge, or vaginal bleeding between periods. Women with gonorrhea are at risk of developing serious complications from the infection, regardless of the presence or severity of symptoms.

Symptoms of rectal infection in both men and women may include discharge, anal itching, soreness, bleeding, or painful bowel movements. Rectal infection also may be asymptomatic. Pharyngeal infection may cause a sore throat, but usually is asymptomatic.

Figure 6. Gonorrhea Rates among Male Active Duty Sailors and Marines Compared to Healthy People 2020 Goals, 2011-2017



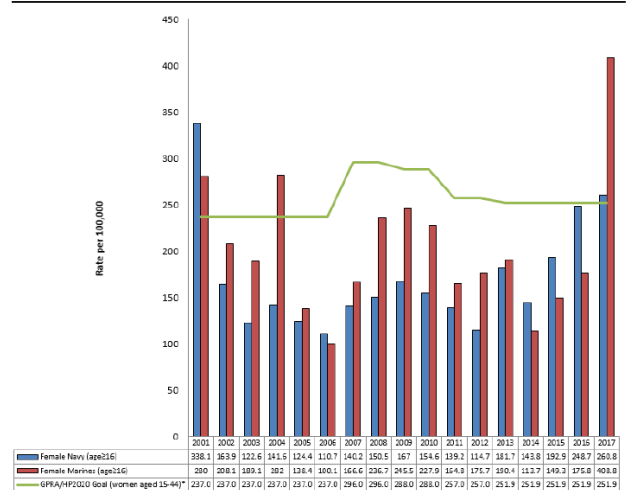
Data Source: Disease Reporting System - Internet (DRSI) and Defense Medical Epidemiology Database (DMED).

*Note that the goal line is based on Healthy People 2020 goals. HP2020 goal line was adjusted in 2013.

Healthy People 2020 Goal (Table B1): <https://www.cdc.gov/std/stats16/std-surveillance-2016-print.pdf>.

Prepared by the EpiData Center Department, Navy and Marine Corps Public Health Center on 24 January 2018.

Figure 5. Gonorrhea Rates among Female Active Duty Sailors and Marines Compared to Healthy People 2020 Goals, 2001 - 2017



Data Source: Disease Reporting System - Internet (DRSI) and Defense Medical Epidemiology Database (DMED).

*Note that the goal line is based on Government Performance and Results Act (GPRA) goals from 2001 - 2010 and Healthy People 2020 goals from 2011 - 2016. HP2020 goal line was adjusted in 2013.

Healthy People 2020 Goal (Table B1): <https://www.cdc.gov/std/stats16/std-surveillance-2016-print.pdf>.

Prepared by the EpiData Center Department, Navy and Marine Corps Public Health Center on 24 January 2018.



What are the complications of gonorrhea? Untreated gonorrhea can cause serious and permanent health problems in both women and men. In women, gonorrhea can spread into the uterus or fallopian tubes and cause pelvic inflammatory disease (PID). The symptoms may be quite mild or can be very severe and can include abdominal pain and fever. PID can lead to internal abscesses and chronic pelvic pain. PID can also damage the fallopian tubes enough to cause infertility or increase the risk of ectopic pregnancy. In men, gonorrhea may be complicated by epididymitis. In rare cases, this may lead to infertility. If left untreated, gonorrhea can also spread to the blood and cause disseminated gonococcal infection (DGI). DGI is usually characterized by arthritis, tenosynovitis, and/or dermatitis. This condition can be life threatening.

Who should be tested for gonorrhea?

- Anyone with genital symptoms such as discharge, burning during urination, unusual sores or rash.
- Anyone with an oral, anal or vaginal sex partner who has been recently diagnosed with gonorrhea.
- All sexually active women younger than 25 years, as well as older women with risk factors such as new or multiple sex partners, or a sex partner who has a sexually transmitted infection.
- Retest 90 days post-gonorrhea treatment.
- If using HIV PrEP (Truvada), screen at least every 6 months at all appropriate anatomical sites.
- Note – patients diagnosed with gonorrhea should also be tested for syphilis and HIV.

How is gonorrhea diagnosed? Urogenital gonorrhea can be diagnosed by testing urine, urethral (for men), or endocervical or vaginal (for women) specimens using nucleic acid amplification testing (NAAT). It can also be diagnosed using gonorrhea culture, which requires endocervical or urethral swab specimens. If a person has had oral and/or anal sex, pharyngeal and/or rectal swab specimens should be collected either for culture or for NAAT (if the local laboratory has validated the use of NAAT for extra-genital specimens).

What is the treatment for gonorrhea? CDC recommends dual therapy for the treatment of gonorrhea. Antimicrobial resistance in gonorrhea is of increasing concern, and successful treatment of gonorrhea is becoming more difficult. If a person's symptoms continue for more than a few days after receiving treatment, he or she should return to a health care provider to be reevaluated. The patient should be advised to avoid sex for 7 days post treatment.

What about partners? All sex partners within the 60 days before the onset of symptoms or diagnosis should be notified, tested and treated.

Follow-up. Test-of-cure is not needed for persons who receive a diagnosis of uncomplicated urogenital or rectal gonorrhea who are treated with any of the recommended or alternative regimens; however, any person with pharyngeal gonorrhea who is treated with an alternative regimen should return 14 days after treatment for a test-of cure using either culture or NAAT. If the NAAT is positive, effort should be made to perform a confirmatory culture before retreatment. All positive cultures for test-of-cure should undergo antimicrobial susceptibility testing.

Symptoms that persist after treatment should be evaluated by culture for *N. gonorrhoeae* (with or without simultaneous NAAT), and any gonococci isolated should be tested for antimicrobial susceptibility. Persistent urethritis, cervicitis, or proctitis also might be caused by other organisms. A high prevalence of *N. gonorrhoeae* infection has been observed among men and women previously treated for gonorrhea. Rather than signaling treatment failure, most of these infections result from reinfection caused by failure of sex partners to receive treatment or the initiation of sexual activity with a new infected partner, indicating a need for improved patient education and treatment of sex partners.

Men or women who have been treated for gonorrhea should be retested 3 months after treatment regardless of whether they believe their sex partners were treated. If retesting at 3 months is not possible, clinicians should retest whenever persons next present for medical care within 12 months following initial treatment.

Treatment of Uncomplicated Gonococcal Infections of the Cervix, Urethra, and Rectum

Recommended Regimen

- Ceftriaxone 250 mg IM in a single dose
PLUS
- Azithromycin 1g orally in a single dose

Alternative Regimens

If ceftriaxone is not available:

- Cefixime 400 mg orally in a single dose
PLUS
 - Azithromycin 1 g orally in a single dose
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